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10/730,349	12/08/2003	Bharath Vasudevan	016295.1510	1764

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EXAMINER

MEHRMANESH, ELMIRA

ART UNIT	PAPER NUMBER
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2113

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/730,349	Applicant(s) VASUDEVAN ET AL.	
	Examiner Elmira Mehrmanesh	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This action is in response to an amendment filed on December 22, 2006 for the application of Vasudevan et al., for a "Transaction transfer during a failover of a cluster controller" filed December 8, 2003.

Claims 1-20 are presented for examination.

Claims 12-20 have been added.

Claims 1-20 are rejected under 35 USC § 102.

Specification

In response to the typographical error correction in the specification, the applicant's remarks have been fully considered, and the last objections have been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Baba (U.S. PG PUB No. 20030237018).

As per claim 1, Baba discloses a method for failover in a cluster (page 4, paragraph [0045]) having two or more servers (Fig. 1), the two or more servers operative with each other by a heartbeat mechanism (page 6, paragraph [0070], lines 4-11) comprising:

detecting a failure of a first server (page 5, paragraph [0054]) of the two or more servers (page 3, paragraph [0028], lines 8-12)

transferring a transaction queue (page 9, paragraph [0088], lines 1-8) from the first server to a second server (pages 4-5, paragraph [0053]) of the two or more servers (page 3, paragraph [0028], lines 8-12); and servicing the transactions of the transaction queue of the first server by the second server (pages 4-5, paragraph [0053]). Baba discloses in figure 5 that initially, the new active computer 510 will send information from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that the *internal queues are equivalent*. *Data from the connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505* (page 9, paragraph [0088], lines 1-8).

As per claim 2, Baba discloses detecting a failure via the heartbeat mechanism (page 6, paragraph [0070], lines 4-11).

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As per claim 3, Baba discloses the failure is an unstable application (page 4, paragraph [0052]).

As per claim 4, Baba discloses the failure is a data path (page 4, paragraph [0052]).

As per claim 5, Baba discloses forwarding the transaction queue from the first server to the second server (pages 4-5, paragraph [0053]) via the heartbeat mechanism (page 6, paragraph [0070], lines 4-11).

As per claim 6, Baba discloses forwarding the transaction queue from the first server to the second server (pages 4-5, paragraph [0053]) via a network of the cluster (page 9, paragraph [0090]) and (Fig. 3).

As per claim 7, Baba discloses a method for failover of a sever in a cluster (page 4, paragraph [0045]) having two or more servers (Fig. 1), the two or more servers operative with each other by a heartbeat mechanism (page 6, paragraph [0070], lines 4-11), comprising:

copying a transaction queue (Fig. 6, *Duplicate*) from a first of the two or more servers (pages 4-5, paragraph [0053]) to a shared storage device (Fig. 5) and (page 4, paragraph [0049], lines 7-10). Baba discloses in figure 5 that initially, the new active computer 510 will send information from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that

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the internal queues are equivalent. Data from the connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505 (page 9, paragraph [0088], lines 1-8)

detecting a failure of the first server (page 5, paragraph [0054])

transferring the transaction queue (page 9, paragraph [0088], lines 1-8) from the shared storage device (page 4, paragraph [0049], lines 7-10) and (Fig. 5) to a second server of the two or more servers (pages 4-5, paragraph [0053]); servicing the transactions of the transaction queue of the first server by the second server (pages 4-5, paragraph [0053]).

As per claim 8, Baba discloses detecting a failure via the heartbeat mechanism (page 6, paragraph [0070], lines 4-11).

As per claim 9, Baba discloses the failure is an unstable application (page 4, paragraph [0052]).

As per claim 10, Baba discloses the failure is a data path (page 4, paragraph [0052]).

As per claim 11, Baba discloses forwarding the transaction queue (page 9, paragraph [0088], lines 1-8) from the shared data source (page 4, paragraph [0049], lines 7-10) and (Fig. 5) to the second server (pages 4-5, paragraph

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[0053]) and (page 9, paragraph [0088], lines 1-8) via a network of the cluster (page 9, paragraph [0090]) and (Fig. 3).

As per claim 12, Baba discloses servicing the transactions of the transaction queue of the first server by the second server occurs without waiting until the transactions timeout (pages 4-5, paragraph [0053]). Baba discloses in figure 5 that initially, the new active computer 510 will send information from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that the *internal queues are equivalent*. *Data from the connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505* (page 9, paragraph [0088], lines 1-8).

As per claim 13, Baba discloses servicing the transactions of the transaction queue of the first server by the second server occurs without waiting until the transactions timeout (pages 4-5, paragraph [0053]).

As per claim 14, Baba discloses a method for failover in a cluster (page 4, paragraph [0045]) having two or more servers (Fig. 1) the two or more servers operative with each other by a heartbeat mechanism (page 6, paragraph [0070], lines 4-11), comprising:

detecting a failure of a first server (page 5, paragraph [0054]) of the two or more servers (page 3, paragraph [0028], lines 8-12)

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transferring a transaction queue (page 9, paragraph [0088], lines 1-8) from the first server to the remaining servers (pages 4-5, paragraph [0053]) of the two or more servers (page 3, paragraph [0028], lines 8-12)

servicing the transactions of the transaction queue of the first server by the remaining servers (pages 4-5, paragraph [0053]).

As per claim 15, Baba discloses transferring a transaction queue from the first server (page 9, paragraph [0088], lines 1-8) to the remaining servers of the two or more servers (page 3, paragraph [0028], lines 8-12) comprises transferring one or more selected portions of the transaction queue to one or more of the remaining servers (page 9, paragraph [0088], lines 1-8) and (pages 4-5, paragraph [0053]).

As per claim 16, Baba discloses detecting a failure via the heartbeat mechanism (page 6, paragraph [0070], lines 4-11).

As per claim 17, Baba discloses the failure is an unstable application (page 4, paragraph [0052]).

As per claim 18, Baba discloses the failure is a data path (page 4, paragraph [0052]).

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As per claim 19, Baba discloses forwarding the transaction queue from the first server (page 9, paragraph [0088], lines 1-8) to the remaining servers (pages 4-5, paragraph [0053]) of the two or more servers (page 3, paragraph [0028], lines 8-12) via the heartbeat mechanism (page 6, paragraph [0070], lines 4-11).

As per claim 20, Baba discloses servicing the transactions of the transaction queue of the first server by the remaining servers (pages 4-5, paragraph [0053]) of the two or more servers (page 3, paragraph [0028], lines 8-12) occurs without waiting until the transactions timeout (pages 4-5, paragraph [0053]). Baba discloses in figure 5 that initially, the new active computer 510 will send information from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that the *internal queues are equivalent*. *Data from the connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505* (page 9, paragraph [0088], lines 1-8).

Related Prior Art

The following prior art is considered to be pertinent to applicant's invention, but nor relied upon for claim analysis conducted above.

Hebert (U.S. Patent No. 6,763,479), "High availability networking with alternate pathing failover".

Mashayekhi et al. (U.S. Patent No. 6,922,791), "Failover system and method for cluster environment".

Saika (U.S. Patent No. 7,055,053), "System and method for failover".

Response to Arguments

Applicant's arguments filed December 22, 2006 have been fully considered but they are not persuasive.

In response to applicant's argument as per claim 1 that the Baba reference fails to teach transferring a transaction queue from a transferring a transaction queue from a first server to a second server, Examiner respectfully disagrees. Baba discloses in figure 5 that initially, the new active computer 510 ***will send information (transferring transaction queue)*** from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that the *internal queues are equivalent. Data from the connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505* (page 9, paragraph [0088], lines 1-8).

In response to applicant's argument as per claim 7 that the Baba reference fails to teach copying a transaction queue from a first server to a shared storage device or transferring a transaction queue from a shared storage device to a second server, Examiner respectfully disagrees. Baba discloses in figure 5 that initially, the new active computer 510 will send information *(transferring transaction queue)* from its internal queue 554 and queue information buffer 568 to the new stand-by computer 505 so that the ***internal queues are equivalent (copy of the transaction queue). Data from the***

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*connection information buffers 564, 566 is sent from the new active computer 510 to the connection information buffers 540, 542 in the new stand-by computer 505 (page 9, paragraph [0088], lines 1-8). Baba discloses that the communication may take place by some direct communication cable, **by a shared disk**, or any other means of sharing information between the two systems (page 4, paragraph [0053], lines 3-6).*

In response to applicant's argument as per claim 14 that the Baba reference fails to teach transferring a transaction queue from a first server to the remaining servers of the cluster, Examiner respectfully disagrees. Claim 14 has similar limitations to claim 1, so please refer to the response to arguments for claim 1 section. Refer to the corresponding section of the claim analysis for details.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will


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the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmira Mehrmanesh whose telephone number is (571) 272-5531. The examiner can normally be reached on 9-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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